Photos by Capt. Rob Kurtz / AFCA

Mr. Sameep Sanghavi, Air Force Communications Agency, assists Master Sgt. Daniel Hoglund, 412th Flight Test Squadron, with mIRC aboard Speckled Trout.

AIRBORNE CHAT

Program links air, land operators in real time

Sergeant Hoglund configures mIRC aboard Speckled Trout. AFCA uses Scope ABLE, a technology test bed, to pre-test solutions so that only high-payback solutions are tested in a shorter period of time.

By Capt. Rob Kurtz
Air Force Communications Agency

SCOTT AIR FORCE BASE, Ill. — The Air Force is now one step closer in providing capabilities that will bridge air and terrestrial domains.

The Air Force Communications Agency, in partnership with the 412th Flight Test Squadron at Edwards AFB, Calif., recently completed a successful in-flight validation of My Internet Relay Chat during a test flight of the Chief of Staff of the Air Force's Speckled Trout airplane over the Mojave Desert.

mIRC is used extensively in the Combined Air Operations Center at Al Udeid AB, Qatar, allowing operators to communicate mission-critical information quickly by ways of "chatting."

The capability that mIRC provides will allow command and control operators to securely chat with any of the ground operators at the CAOC from anywhere in the world via International Maritime Satellite radio over SIPRNET.

The AFCA flight test team worked with the 868th Communications Squadron from here to establish a mIRC server at AFCA to host the chat session.

The team installed the mIRC client on board Speckled Trout, then tested the chat capability over SIPRNET with AFCA. After a successful test, operators at the CAOC then connected to the server at AFCA and participated in a three-way chat. The test demonstrated the capability for multiple users, in the air and on the ground, to quickly exchange encrypted mission-critical information.

Second Lt. Kelson Chabak, a flight test engineer at the 412th FLTS, said, "**Running mIRC over the SIPRNET is definitely advantageous to the military**. The user only needs basic computer skills to install the system. mIRC is very easy

SPECKLED TROUT

FAST FACTS

PRIMARY FUNCTION: THEATER TACTICAL AIRLIFT
SPEED: 345-417 MILES PER HOUR
WINGSPAN: 132 FT. 7 IN.
LENGTH: 97 FT. 9 IN.
RANGE: 2,356 MILES WITH CARGO; 5,200 WITHOUT CARGO
CREW: FIVE

to setup and very little configuration was needed on our end."

The Speckled Trout radio operator, Master Sgt. Daniel Hoglund, added, "The ability to carry on conversations with multiple users without swapping screens is very beneficial. **Due to minimal latency between the warfighter in the AOR and the aircraft, I see tremendous gain to both the executive airlift and C4ISR airborne fleet**. We are very pleased with the flight test and the joint venture by both the 412th FLTS and the Air Force Communications Agency."

The Airborne Laboratory Environment, also known as Scope ABLE, a major component of AFCA's experimental Network Operations Security Center, was key in the mIRC testing process.

NOSC-X encompasses a variety of testing and networking resources and functions in AFCA's Technology Interoperability Facility and other designated areas. Scope ABLE is the recently procured DC-9 fuselage giving the Air Force the ability to test airborne networking and computing technologies prior to actual flight testing.

AFCA uses Scope ABLE to pre-test solutions so that only high-payback solutions are tested in a shorter period of time.

As a result, the mIRC airborne validation test on Speckled Trout was completed in less than one hour. Officials estimate more than $48,000 of aircraft flight time was saved by using the Scope ABLE test facility for pre-validation testing of mIRC. Additional new technologies, such as Micro cell, which is capable of placing secure cell phone calls using wireless personal data assistants, are currently being tested in AFCA's Scope ABLE test facility prior to validation testing on operational aircraft such as Speckled Trout.

This capability will help immensely as implementation efforts are coordinated between the E-8C Joint Surveillance Target Attack Radar System, the Combined Air Operations Center and the Air Support Operations Center.

The Infostructure Architecture Council has approved mIRC for use on SIPRNET in a contained status and ACC/SCSI is managing license requests. Any aircraft that has SIPRNET connectivity has the capability to use mIRC. Designated Approval Authority approval is required to field mIRC on any aircraft, and AFCA is available to assist in testing.

This airborne chat capability will provide communicators with easy, high-speed, air-to-ground and air-to-air command and control.